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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/442,977	11/18/1999	DR. MARTIN MAASS	99-P-7370-US	6618

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SIEMENS CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
186 WOOD AVENUE SOUTH  
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EXAMINER

MILLER, CARL STUART

ART UNIT	PAPER NUMBER
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3747

DATE MAILED: 05/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/442,977

Applicant(s)

MHAAS

Examiner

M. J. C.

Group Art Unit

3747

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-9, 14-20, 31-53 is/are pending in the application.
- ☐ Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-3, 5-9, 14-20, 31-47 & 49-53 is/are rejected.
- ☒ Claim(s) 4 and 48 is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, 7, 8, 14, 15, 17, 19, 31, 32, 34 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka.

In particular, the applicant's attention is directed to column 11, lines 36-41 wherein the use of only the smaller diameter pump is described.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 6, 9, 16, 18, 33, 37, 49, 50, 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka.

In particular, it would have been obvious to bias the spill valve open since this allows for spill on both pumps and timing can be controlled by activating the solenoid valve. Secondly, the larger piston shown appears to be approximately twice as large as the smaller pistons.

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Claims 20 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Kellner. Tanaka applies as noted above and Kellner teaches a conventional, and therefore obvious, method of driving three pumps using a central rotating cam shaft.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stockner in view of Tanaka.

Tanaka applies as noted above and Stockner teaches a variable delivery system for hydraulic oil used to actuate unit fuel injectors. Since both systems control high pressure fuel injection it would have been obvious to use the variable output pump of Tanaka to feed the variable oil pressure in Stockner.

Claims 38-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klinger in view of Kellner and Tanaka.

Klinger and Kellner apply as per the last office action and Tanaka applies as noted above.

It would have been obvious to modify Klinger by driving the pumps using the cam of Kellner, since the latter also fed a common rail, and by having at least one piston larger than the other, since Tanaka taught cutting out larger pump pistons at low loads.

Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klinger in view of Rembold and Tanaka.

Klinger and Tanaka apply as noted above and Rembold teaches connecting the fuel rail back to the inlet of the high pressure pump.

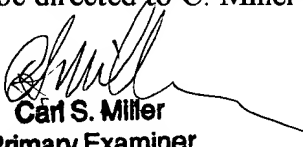
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It would have been obvious to mount the two pumps of Klinger in one housing because Tanaka teaches two pumps used for the same purpose and mounted in a single housing. Also, Rembold is a two-stage high pressure fuel rail thereby making his return obvious to use in Klinger.

Claims 4 and 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Due to the application of new art rejections against some of the unamended claims this action has been made non-final.

Any inquiry concerning this communication should be directed to C. Miller at telephone number 308-2653.

  
**Carl S. Miller**  
**Primary Examiner**

C. Miller

May 18, 2002